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ABSTRACT

A detailed description is provided of the variable general implementation of the instructional programming model (GOSA), which is part of the analysis in phase I of the Evaluation of Practices in Individualized Schooling. The variable is defined; the questionnaires on which the variable is based are listed; the procedures used to scale the variable are explained; the distribution of the variable in the 156 individually guided education (IGE) schools which participated in phase I is described; and the internal consistency of the variable is reported. (Author/MH)

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Technical Report No. 483

PROCEDURES USED IN PHASE I OF THE IGE EVALUATION TO SCALE THE VARIABLE GENERAL IMPLEMENTATION OF THE INSTRUCTIONAL PROGRAMMING MODEL

by Gary G. Price, Terence C. Janicki, Judith A. Howard, Deborah M. Stewart, Anne E. Buchanan, and Thomas A. Romberg

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Wisconsin Research
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Evaluation of Practices in Individualized Schooling

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for Individualized Schooling
The University of Wisconsin
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Abstract

This report provides a specific discussion of a variable that is part of the analysis in Phase I of the Evaluation of Practices in Individualized Schooling. The name of the variable is General Implementation of the Instructional Programming Model. Included in this discussion is a verbal definition of the variable, a list of the questionnaire items on which the variable is based, a technical explanation of the procedures used to scale the variable, a description of the distribution of the variable in the 156 schools that participated in the Phase I study, and the internal consistency of the variable. Most readers would find it useful to read Technical Report No. 475, Overview of School and Unit Variables and their Structural Relations in Phase I of the IGE Evaluation, before beginning this one.

This Technical Report provides a detailed description of the variable, General Implementation of the Instructional Programming Model. The description includes a verbal definition of the variable, a list of the questionnaire items on which the variable was based, and a technical explanation of the procedures used to scale the variable. The report also contains a description of the distribution and the internal consistency of the variable. This variable, among others, is part of the analysis in Phase I of the Evaluation of Practices in Individualized Schooling. Phase I, which is a study of 156 Individually Guided Education (IGE) schools, is the large sample part of the overall evaluation effort. Further explanation of the Phase I study and an explanation of the relationship of this variable to the Phase I analysis is given in Technical Report No. 475, Overview of School and Unit Variables and their Structural Relations in Phase I of the IGE Evaluation.

Verbal Definition of the Variable

General Implementation of the Instructional Programming Model is a measure of implementation of general school practices that have been encouraged by the Wisconsin R&D Center as supportive of the Instructional Programming Model (IPM). The abbreviated name of this measure, as used in computer statements, is GOSA. GOSA is based on self-reported practices of: (a) setting school-wide instructional objectives by the Instructional Improvement Committee (IIC); (b) adapting school-wide objectives in Instruction & Research (I&R) units; (c) using IIC guidance in the development of record-keeping procedures; and (d) providing for carrying out the IPM in the I&R units of the school.

Explanation of Variable-naming Conventions

This measure, like most of the variables used in Phase I of the IGE evaluation, is a composite of items taken from several different instruments. The names and identification numbers of the respective instruments are given in Table 1, along with other information. The instruments numbered 11, 17, 51, 52, and 53 were given to all staff members[1] of each school studied, and were to be filled out individually. One copy of Instruments 22, 25, and 26 was given to each of the I&R units[2] studied (two I&R units from each school, one that included second grade students and one that included fifth grade students). These instruments were filled out by the unit as a group, after they reached consensus. Instruments 23 and 24 were given to teachers of the I&R units studied and they filled them out individually. One copy of Instruments 16 and 21 was given to the IIC of each school, and was filled out by the IIC as a group. Instrument 13, a questionnaire about the entire school, was filled out by the principal of the school.

In order to keep track of information collected from different sources, it was necessary to develop some complex conventions for naming variables. Those conventions are explained here. The abbreviated name of each item and each variable contains eight or fewer

---

[1] Includes all professional personnel (i.e., not aides) assigned at least one-third time to the building in both the 1976-7 and 1977-8 school years.

[2] Includes all professional personnel (i.e., not aides) assigned at least one-third time to the I&R unit in both the 1976-7 and 1977-8 school years and directly involved in planning instruction for the unit students in reading, math, or language arts.

Table 1

Instrument Identification

Test booklet	Instrument	Instrument number	File	Respondent
General staff questionnaire	IGE implementation survey	11	H	School staff members
	Staff background	17	H	School staff members
	Assumptions regarding conditions of schooling	51	H	School staff members
	Job satisfaction survey	52	H	School staff members
	Assumptions regarding learning and knowledge	53	H	School staff members
Unit staff questionnaire	I&R structure and function	22	A,B	Unit as a group
	Record keeping and regrouping	25	A,B	Unit as a group
	Instructional time and objectives	26	A,B	Unit as a group
	Role of staff teacher	23	F,G	All unit teachers
	Instructional practices	24	F,G	All unit teachers
IIC questionnaire	IIC structure and function	21	C	IIC as a group
	Demographic background	16	C	IIC as a group
IGE schools questionnaire	IGE schools questionnaire	13	C	Principal

characters, in order to be readable by computer. The first character of each item and variable name is a letter that indicates the case for whom the item or variable is a measure. In this discussion, variables include information from two or more questionnaire items or transformed information from one item. Items coming from a common source (i.e., the same respondents) were collected into a common data file whose name corresponds to the first letter in the names of all items collected in it. There were six such files. Those files, described in terms of the cases to which they pertain and in terms of their respective alphabetic codes, are:

A I&R units containing 2nd grade students (the I&R unit as a case).

B I&R units containing 5th grade students (the I&R unit as a case).

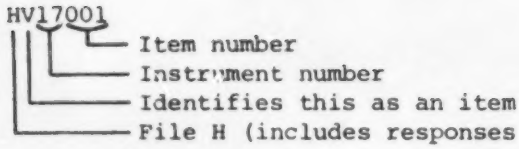
C The entire school as a case.

F Individual teachers of I&R units containing 2nd grade students.

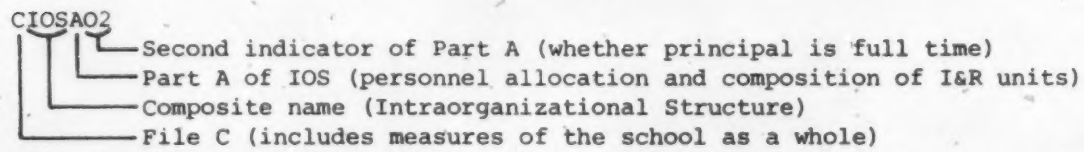
G Individual teachers of I&R units containing 5th grade students.

H Individual staff members emplcyed by the school.

Item names. The second character in all item names is the letter "V," which distinguishes item names from names of other variables. The third and fourth characters in item names denote the number of the instrument of which the item is a part (see Table 1). The fifth, sixth, and seventh, and in some cases, eighth characters in item names contain the identification number of the item within the instrument. For example, Item number 1 from the Staff Background Questionnaire (Instrument 17), which was given to all members of the school staff, is named as follows:

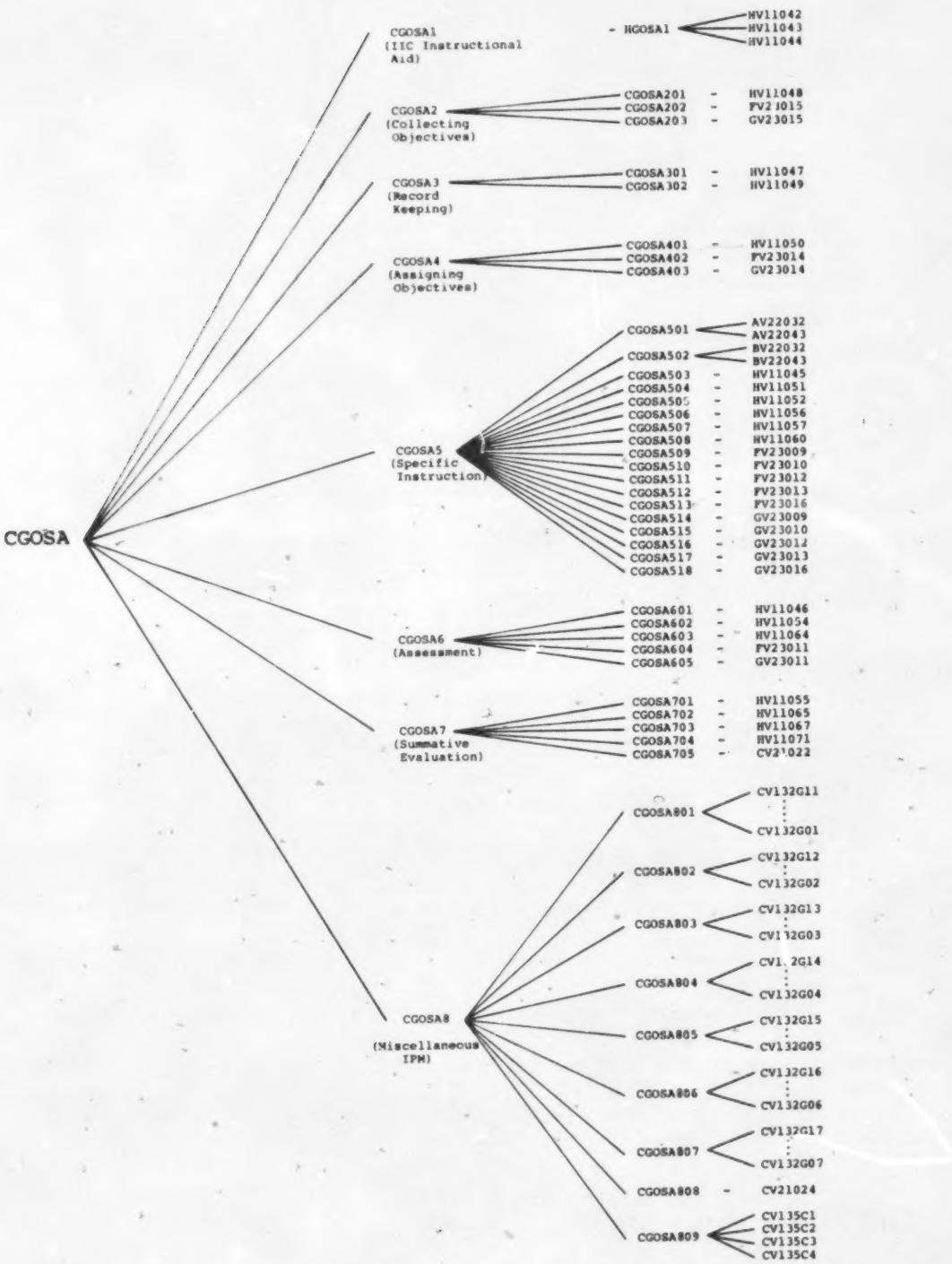


Variable names. Variable names, like item names, begin with an alphabetic code that indicates the cases to which they pertain. Following that first character is an abbreviation of two to four characters used by the evaluation staff to denote the major composite of which the variable is a constituent. Subsequent characters identify the position of the variable in the scaling operation, as diagrammed in Figure 1. For example, one of the constituents of the Intraorganizational Structure composite (IOS) is named as follows:


CIOSAO2
Second indicator of Part A (whether principal is full time)
Part A of IOS (personnel allocation and composition of I&R units)
Composite name (Intraorganizational Structure)
File C (includes measures of the school as a whole)

Some of the composites are measures of the school as a whole, whereas others are specific to both the I&R unit (2nd or 5th grade) and the subject area (math or reading). Composites that pertain to the school as a whole are: Interorganizational Relations (IOR), Procedures Fostering Coordination and Improvement of the School Program (GOSB), General Staff Background (GSB), Intraorganizational Structure (IOS), Belief in Individual Differences (INDIV), View of Learning: Constructivism vs. Behaviorism (CVSB), the School's Demographic Setting (DB), General Implementation of the Instructional Programming Model (GOSA), and Teacher Job Satisfaction (JOBSAT).

Figure 1: GOSA



$$CGOSA = \left[6(CGOSA1) + (CGOSA2)18 + 18(CGOSA3 + 13(CGOSA4) + 13\ (CGOSA5) + (CGOSA6)13 + 6(CGOSA7) + (CGOSA8)\ 13 \right] /4$$

Composites that are specific to I&R unit and subject area are: Utilization of Curriculum Resources (UCR), Information Acquisition (IA), Individualization of Instructional Decisions (IDM), Management of Grouping and of Instructional Continuity (IE), Allocated Learning Time (ALT), and measures of student achievement. In the technical explanations of scaling, composites specific to the 2nd grade I&R unit begin with the letter "A"; composites specific to the 5th grade I&R unit begin with the letter "B." For brevity, a lower case "z" is used as the first letter wherever the explanation of scaling applies to both the 2nd and 5th grade I&R units.

Scaling Procedure

GOSA, a measure pertaining to the school as a whole, is divided into eight sections (CGOSA1 to CGOSA8). The first seven sections are related to particular aspects of the IPM; the eighth is a miscellaneous section. Figure 1 (see page 7) portrays the scaling operations schematically; actual numerical values are not included in this portrayal. Appendix A lists the items from which GOSA is derived, and Appendix B presents the SPSS commands used to create the variable.

IIC instructional aid (CGOSA1). CGOSA1 is composed of the school mean of general staff responses to items HV11042, IIC formulation of school educational objectives; HV11043, IIC coordination of identification of specific instructional objectives; and HV11044, IIC identification of the criteria for student attainment of objectives. The average of these rating scales is computed for each school respondent prior to computation of the school mean response.

Collecting objectives (CGOSA2). CGOSA2 is composed of school-wide aggregations of items HV11048 and zV23015. Item HV11048 is a rating by general staff of I&R unit staff involvement in estimating attainable student objectives. Item zV23015 is a self-assessment of whether the unit teacher responding has been a resource person in preparing instructional objectives. The two unit means per school on item zV23015 are totaled and then truncated so that a sum of one or higher receives a value of one. Then the school mean on HV11048 is added to the school score on zV23015 (which is added over the two units). This latter sum is multiplied by two, to yield a possible maximum score equal to that of the HV11048 mean rating. The entire score is then divided by two, which yields a range of scores equivalent to that of CGOSA1.

Record keeping (CGOSA3). CGOSA3 is measured as the mean of school general staff responses to items HV11047, identification of record-keeping procedures, and HV11049, the extent to which I&R unit staff use records, etc., to determine student achievement levels, learning styles, and motivational levels. These two items are averaged for each respondent prior to computation of the school mean.

Assigning objectives (CGOSA4). CGOSA4 is composed of several staff responses to item HV11050, the preparation of short-term instructional objectives for each student, combined with unit teacher responses to zV23014, which measures whether the respondent is a resource person who plans the grouping of unit students for instruction. The total of unit teachers' responses per unit per school is calculated and then truncated so that a one or higher is assigned a value of one. Then, the school mean of HV11050 is added to twice the sum of the zero/one responses for

each unit to z23014. Each item thus has a maximum value of four. The total is then divided by two, which yields a range of responses equivalent to that of CGOSA1.

Specific instruction (CGOSA5). CGOSA5 is a weighted sum of responses to 13 items, all tapping specific instructional activities. Items zV22032 and zV22043, which were responded to by the unit as a group, measure the extent to which paid and volunteer aides have specific instructional assignments in the I&R unit. The responses are added and truncated to a maximum value of two, which is achieved when some paid aides and some volunteer aides have specific instructional assignments, or when all the aides in one of these categories have such assignments. This operation occurs in both unit files. Then, the school mean of general staff responses to the following items are calculated: HV11045, coordination of materials identification; HV11051, unit staff instructional strategy planning; HV11052, attention to individual student differences; HV11056, comprehensiveness of curricular guides for teachers; HV11057, adaptability of materials to learning styles of students; and HV11060, selection of materials appropriate for each specific student. Next, the unit totals per school are calculated from unit teachers' responses to items: zV23009, resource person in a subject area; zV23010, resource person in topics within a subject area; zV23012, resource person in teaching large groups; zV23013, resource person in teaching small groups; and zV23016, resource person in developing or gathering instructional materials. The unit total for each of these items is truncated to a maximum value of one. Finally, all constituents of CGOSA5 are summed. The last set of items, zV23009 to zV23016 (in files F and G) are weighted by two; other

items are weighted by one. This weighting scheme reflects the greater importance of items assessing direct teaching skills within the unit. The total is then divided by 12, to yield a total range of responses equivalent to that of CGOSA1.

Assessment (CGOSA6). CGOSA6 is composed of general staff responses to items: HV11046, identification of means for evaluating student achievement of instructional objectives; HV11054, unit staff evaluation of student attainment of objectives; and HV11064, student evaluation by unit staff during and at the close of instructional sequences, combined with unit teacher responses to item zV23011, whether the respondent is a resource person in student assessment. The total per unit per school to item zV23011 is calculated and truncated to a maximum value of one. This value is then multiplied by two (to yield values comparable in scale to the general staff items), and added to the school mean of the responses to items HV11046, HV11054, and HV11064. This sum is then divided by four to yield a range of responses equivalent to that of CGOSA1.

Summative evaluation (CGOSA7). CGOSA7 is composed of general staff responses to items: HV11055, unit identification of future activities based on summative evaluation; HV11065, provision of feedback to students; HV11067, unit staff evaluation of students' complete instructional program across curricular areas; and HV11071, IIC evaluation of the school's attainment of educational objectives across the I&R units, combined with a rating of the time devoted by the IIC to such monitoring and evaluation as reported in item CV21022. An IIC response of 10 to 29% receives a value of 4, a response of 30 to 39% receives a value of 2, and responses of from 0 to 9% or from 40 to 100% receive a value of 0.

Between 10 and 30% of IIC time is believed to be the optional allocation of time to these activities. This value is added to the school mean on items HV11055, HV11065, HV11067 and HV11071, and the total is divided by five, to yield a range of responses equivalent to that of CGOSA1.

Miscellaneous IPM (CGOSA8). CGOSA8 is a composite of several groups of items. The first set includes responses by principals to item CV132G, which assesses whether each of seven subject areas is considered to be an IGE subject (including identification of objectives, preassessment, grouping, instruction, testing, and regrouping), for each unit in the school. Responses are totaled over units for each subject area, and then divided by the number of units per school, yielding seven separate subject area measures of the proportion of units considered to be using the IPM. The IIC's group response to item CV21024, IIC assistance to units in instructional programming in IGE subjects, is rescaled so that from 20 to 49% of IIC time devoted to such assistance is given a value of 4, from 10 to 19% is given a value of 2, and from 0 to 9% and 50 to 100% is given a value of 0. These values reflect the assumption that IIC assistance to units in IGE programming is an important function of the IIC. Next, responses by principals to items CV135C1, CV135C2, CV135C3, and CV135C4 are recoded so that original codes of zero (no procedure used) or two (only used formerly) are given a value of zero, and responses of one, three, or four (extent of use of IGM procedure) are each given a value of one, indicating some IGM use. Then, the four items are added and the sum is recoded so that a value of one, meaning only one of four IGM procedures is used, is given a two, and values of two to four,

meaning more than one IGM procedure is used, are given a four. Finally, the variable CGOSA08 is created by adding the seven subject area measures of the proportion of units using the IPM (each weighted by eight-sevenths), the CV21024 response and the combined IGM response. The total is divided by four, which yields a range of values equivalent to that of CGOSA1.

School IPM (CGOSA). The final score on CGOSA is calculated as a weighted sum of each of the eight segments. CGOSA1, IIC instructional aid and CGOSA7, summative evaluation, are weighted by 6. CGOSA4, assigning objectives, CGOSA5, specific instruction, CGOSA6, assessment, and CGOSA8, miscellaneous IPM, are weighted by 13. CGOSA2, collecting objectives, and CGOSA3, record keeping, are weighted by 18. The weighted sum of these segments is then divided by four, to yield the score on GOSA.

Distribution and Internal Consistencies of the Scaled Composite

Summary statistics for GOSA, based on the 156 schools in the Phase I sample, are: mean = 62.441; SD = 12.263; median = 64.061; actual minimum = 16.578; logical minimum = 0; actual maximum = 93.446; and logical maximum = 100. A histogram of GOSA is included in Figure 2. The internal consistencies of the scaled composite and its constituents are presented in Table 2.

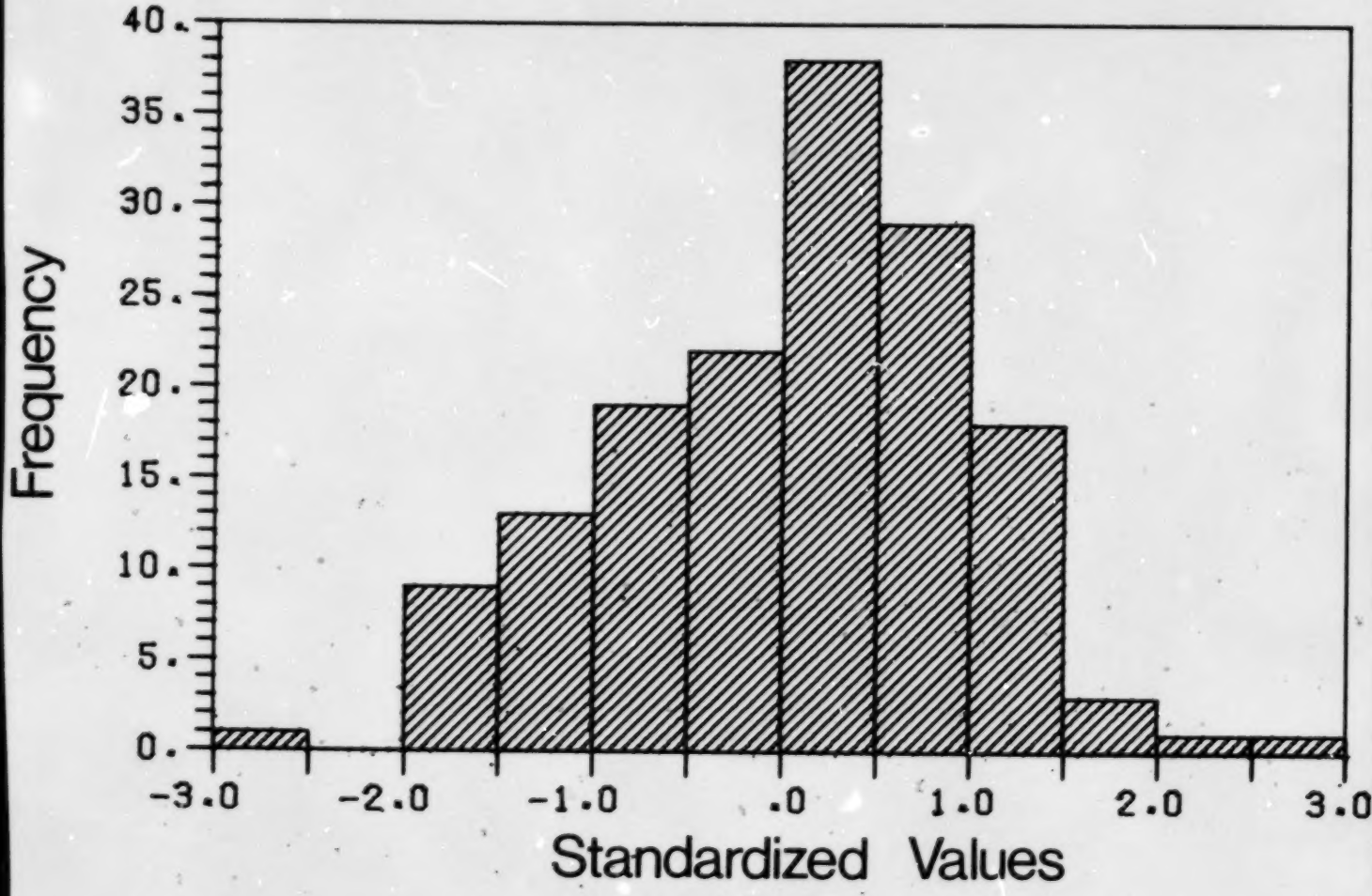


Figure 2. General Implementation of the Instructional Programming Model.

Internal Consistencies of the Scaled Composite and its Constituents

	Variable	α
Composite:	General Implementation of the IPM (GOSA)	.87
Constituents:	CGOSA1	--[a]
	CGOSA2	.39
	CGOSA3	.79
	CGOSA4	.31
	CGOSA5	.76
	CGOSA6	.74
	CGOSA7	.51
	CGOSA8	.17

[a] This is a one-item constituent; therefore, the internal consistency cannot be calculated.

The relation of internal consistency to reliability in general and to validity can be difficult to understand. A composite whose constituents have high internal consistency may or may not possess high test-retest reliability. Conversely, a composite that has high test-retest reliability may have low internal consistency. Any composite that measures a homogeneous construct should rightfully be expected to have high internal consistency, but a composite that measures a construct which combines several facets which are empirically unrelated should not necessarily have high internal consistency, as noted by Cronbach and Meehl (1955)[3]. Several of the composites used in Phase I fit the latter description, and, accordingly, should not be expected to have high internal consistency.

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[3]Cronbach, L. J., & Meehl, P. E. Construct validity in psychological tests. Psychological Bulletin, 1955, 52, 281-302.

Appendix A: Item Pool Selected

Files A,B: Unit as Case

zV22032
zV22043

File C: School as Case

CV132G11 -- CV132G01
CV132G12 -- CV132G02
CV132G13 -- CV132G03
CV132G14 -- CV132G04
CV132G15 -- CV132G05
CV132G16 -- CV132G06
CV132G17 -- CV132G07
CV135C1
CV135C2
CV135C3
CV135C4
CV21022
CV21024

File H: General Staff as Case

HV11042
HV11043
HV11044
HV11045
HV11046
HV11047
HV11048
HV11049
HV11050
HV11051
HV11052
HV11054
HV11055
HV11056
HV11057
HV11060
HV11064
HV11065
HV11067
HV11071

Files F,G: Unit Teacher as Case

zV23009
zV23010
zV23011
zV23012
zV23013
zV23014
zV23015
zV23016

Files A,B: Unit as Case

zV22032 32 Has assigned tasks which include definite *instructional* activities with children.

zV22043 43 Has assigned tasks which include definite *instructional* activities with children.

File C: School as Case

CV132G11-CV132G01
CV132G12-CV132G02
CV132G13-CV132G03
CV132G14-CV132G04
CV132G15-CV132G05
CV132G16-CV132G06
CV132G17-CV132G07

G. IGE subject(s) (An IGE subject is one in which teachers follow the whole sequence of: identifying objectives for the students in their unit, preassessing for those objectives, then grouping students according to which objectives they need to master, instruction on those objectives, then testing again, and regrouping.)

___Reading
___Lang Arts
___Math
___Science
___Soc St
___Music, art, phy ed
___Other (please specify)

Individually Guided Motivation (IGM) procedures

CV135C1
____Adult-child conferences to encourage independent reading
____Teacher-child conferences for goal setting
____Guiding older children in tutoring younger children
____Guiding children toward self-directed prosocial behavior

CV21022 22 Monitoring IGE implementation in the school and evaluating progress

CV21024 24 Aiding the units in instructional programming in IGE subjects and related assistance such as securing materials and recording pupil progress

Files F,G: Unit Teachers as Case

For which areas have you been a resource person *in the unit?* That is, have you taken on any "specialties" within the unit? Mark (0) *No* or (1) *Yes* for questions 9-17.

zV23009	9	A subject matter area on a permanent basis
zV23010	10	Certain topics within a subject matter area
zV23011	11	Assessment of students' needs, performance, and progress
zV23012	12	Teaching methods in class-sized or large groups
zV23013	13	Teaching methods in medium, small, or tutorial groups
zV23014	14	Plans and methods for grouping unit students for instruction
zV23015	15	Preparing and/or gathering instructional objectives
zV23016	16	Developing or gathering instructional materials

File H: General Staff as Case

The school's IIC, taking into account district policies and programs and interacting with the I & R unit staffs:

HV11042 42 Formulates the educational objectives in the various curricular areas and the affective domain to be attained by the school's student population during the forthcoming year.

HV11043 43 Coordinates the identification of specific instructional objectives related to each of the general educational objectives or provides for their formulation.

HV11044 44 Indicates the instructional objectives which should be attained to a criterion of mastery by all students at some time during their elementary school years, those which should be achieved by all students to a level appropriate for each student, and those which should be attained only by some students, either to a mastery criterion or to a level judged appropriate for the particular student, are also specified.

HV11045 45 Coordinates the identification of instructional materials and equipment that will be needed to attain the objectives, or provide for their availability.

HV11046 46 Outlines the means for evaluating students' achievement of the instructional objectives and identifies related measurement tools or makes provisions to construct them.

HV11047 47 Identifies the record-keeping procedures and record-keeping forms or makes provisions for their development.

HV11048 48 *The staff of each I & R Unit* estimates the instructional objectives that may be attainable by the students of their unit.

HV11049 49 The staff of each I & R Unit using available records, teacher observation, work samples, performance tests, and paper-pencil tests as appropriate, determines the level of achievement of their students related to the instructional objectives identified in the various curricular areas and also identifies the learning style, level of motivation, and other characteristics of the students.

HV11050 50 Based upon the preassessment, the staff of each I & R Unit sets the instructional objectives for each student of the unit to attain over a short period of time; when the students select or formulate their own objectives, the staff makes provisions for individual teachers to carry out this process with the students.

HV11051 51 The staff of each I & R Unit in unit meetings outlines the general pattern of instructional programming for thier students; each staff teacher implements the unit's strategy with the particular students selected or assigned in the unit meeting.

HV11052 52 Differences among students in rates of learning, learning styles, and other characteristics are provided for by varying (a) the amount of attention and guidance by the teacher, (b) the amount of time spent in interaction among students, (c) the use of printed materials, audiovisual materials, and direct experiencing of phenomena, (d) the use of space and equipment (media), and (e) the amount of time spent by each student in one-to-one interactions with the teacher or media, independent study, adult or student-led small group activities, and adult-led group activities.

HV11054 54 The staff of each I & R Unit, with appropriate involvement of the students, evaluates the students' attainment of their instructional objectives, taking into account whether the criterion for the particular objectives is mastery or whether it is performance at a level judged appropriate for the individual student.

HV11055 55 The staff of each I & R Unit decides the next activities for each student based on summative evaluation gathered at the end of each instructional sequence.

HV11056 56 The published curricular guides for teachers include statements of the instructional objectives, evaluation tools and procedures related to the objectives, suggested instructional activities, and record-keeping devices and procedures.

HV11057 57 The materials for students include films, film-strips, printed materials, manipulatives, and other forms as needed to adapt instruction to the learning styles, levels of reading achievement, and other characteristics of the students.

HV11060 60 The instructional staff select those materials which are appropriate for each student to attain the specific instructional objectives.

HV11064 64 Each student is evaluated by the I & R Unit staff during and at the end of instructional sequences.

HV11065 65 Feedback is provided to individual students to facilitate their learning.

HV11067 67 The I & R Unit staff evaluates the effectiveness of each student's complete instructional program during the year in all curricular areas.

HV11071 71 The IIC evaluates attainment of the school's educational objectives by the student population of the school based on summative evaluation information gathered systematically across the I & R Units.

Appendix B: SPSS Commands for GOSA

GOSA1: IPM STEP ONE

Operations to do in HGENRL

```
COMPUTE          HGOSA1 = (HV11042 + HV11043 + HV11044) /3
ASSIGN MISSING   HGOSA1 (-99)
```

Operations to do in CSCHOOL

```
ADD VARIABLES    CGOSA1
COMMENT          CGOSA1 IS THE SUBFILE MEAN OF HGOSA1 FROM FILE
                 HGENRL
VAR LABELS       CGOSA1, GOS:  IPM STEP ONE
MISSING VALUES   CGOSA1 (-99)
```

GOSA2: IPM STEP TWO

Operations to do in CSCHOOL

```
ADD VARIABLES    CGOSA201, CGOSA202, CGOSA203
VAR LABELS       CGOSA201, SUBFILE MEAN OF HV11048/
                 CGOSA202, SUBFILE TOTAL OF FV23015/
                 CGOSA203, SUBFILE TOTAL OF GV23015/
MISSING VALUES   CGOSA201, CGOSA202, CGOSA203  (-99)
RECODE           CGOSA202, CGOSA203 (1 THRU HIGHEST = 1)
COMPUTE          CGOSA2 =  (CGOSA201 + 2 * (CGOSA202 + CGOSA203))/2
VAR LABELS       CGOSA2, GOS:  IPM STEP TWO
ASSIGN MISSING   CGOSA2
```

GOSA3: IPM STEP THREE

Operations to do in CSCHOOL

```
ADD VARIABLES    CGOSA301, CGOSA302
VAR LABELS       CGOSA301, SUBFILE MEAN OF HV11047/
                 CGOSA 302, SUBFILE MEAN OF HV11049/
MISSING VALUES   CGOSA301, CGOSA302 (-99)
COMPUTE          CGOSA3 = (CGOSA301 + CGOSA302)/2
VAR LABELS       CGOSA3, GOS:  IPM STEP THREE
ASSIGN MISSING   CGOSA3 (-99)
```

GOSA4: IPM STEP FOUR

Operations to do in CSCHOOL

ADD VARIABLES	CGOSA401, CGOSA402, CGOSA403
VAR LABELS	CGOSA401, SUBFILE MEAN OF HV11050/
	CGOSA402, SUBFILE TOTAL OF FV23014/
	CGOSA403, SUBFILE TOTAL OF GV23014/
MISSING VALUES	CGOSA401, CGOSA402, CGOSA403 (-99)
RECODE	CGOSA402, CGOSA403 (1 THRU HIGHEST = 1)
COMPUTE	CGOSA4 = (CGOSA401 + 2 * (CGOSA402 + CGOSA403))/2
VAR LABELS	CGOSA4, GOS: IPM STEP FOUR
ASSIGN MISSING	CGOSA4 (-99)

GOSA5: IPM STEP FIVE

Operations to do in MERGE File

MERGE FILES	FILE = CSCHOOL VARIABLES = ALL/
	FILE = AUNIT2 VARIABLES = AV22032, AV22043/
	FILE = BUNIT5 VARIABLES = BV22032, BV22043/
COMPUTE	CGOSA501 = AV22032 + AV22043
RECODE	CGOSA501 (1 THRU 4 = 2)
COMPUTE	CGOSA502 = BV22032 + BV22043
RECODE	CGOSA502 (1 THRU 4 = 2)
VAR LABELS	CGOSA501, UNIT 2 AIDE INSTRUCTION/
	CGOSA502, UNIT 5 AIDE INSTRUCTION/
ASSIGN MISSING	CGOSA501, CGOSA502 (-99)
DELETE VARS	AV22032, AV22043, BV22032, BV22043
SAVE FILES	CSCHOOL

Operations to do in CSCHOOL

ADD VARIABLES	CGOSA503 TO CGOSA518
MISSING VALUES	CGOSA503 TO CGOSA518 (-99)
VAR LABELS	CGOSA503, SUBFILE MEAN OF HV11045/
	CGOSA504, SUBFILE MEAN OF HV11051/
	CGOSA505, SUBFILE MEAN OF HV11052/
	CGOSA506, SUBFILE MEAN OF HV11056/
	CGOSA507, SUBFILE MEAN OF HV11057/
	CGOSA508, SUBFILE MEAN OF HV11060/
	CGOSA509, SUBFILE SUM OF FV23009/

```
                    CGOSA510, SUBFILE SUM OF FV23010/
                    CGOSA511, SUBFILE SUM OF FV23012/
                    CGOSA512, SUBFILE SUM OF FV23013/
                    CGOSA513, SUBFILE SUM OF FV23016/
                    CGOSA514, SUBFILE SUM OF GV23009/
                    CGOSA515, SUBFILE SUM OF GV23010/
                    CGOSA516, SUBFILE SUM OF GV23012/
                    CGOSA517, SUBFILE SUM OF GV23013/
                    CGOSA518, SUBFILE SUM OF GV23016/
RECODE              CGOSA509 TO CGOSA518 (1 THRU HIGHEST = 1)
COMPUTE             CGOSA5 = ((CGOSA501 + CGOSA502) + CGOSA503 +
                              CGOSA504 + CGOSA505 + CGOSA506 + CGOSA507 +
                              CGOSA508 + 2 * (CGOSA509 + CGOSA510 +
                              CGOSA511 + CGOSA512 + CGOSA513 + CGOSA514 +
                              CGOSA515 + CGOSA516 + CGOSA517 + CGOSA518))/12
ASSIGN MISSING      CGOSA5 (-99)
VAR LABELS          CGOSA5, GOS:  IPM STEP FIVE
```

GOSA6: IPM STEP SIX

Operations to do in CSCHOOL

```
ADD VARIABLES       CGOSA601 TO CGOSA605
MISSING VALUES      CGOSA601 TO CGOSA605 (-99)
VAR LABELS          CGOSA601, SUBFILE MEAN OF HV11046/
                    CGOSA602, SUBFILE MEAN OF HV11054/
                    CGOSA603, SUBFILE MEAN OF HV11064/
                    CGOSA604, SUBFILE SUM OF FV23011/
                    CGOSA605, SUBFILE SUM OF GV23011/
RECODE              CGOSA604, CGOSA605 (1 THRU HIGHEST = 1)
COMPUTE             CGOSA6 = (CGOSA601 + CGOSA602 + CGOSA603) +
                             2 * (CGOSA604 + CGOSA605))/4
ASSIGN MISSING      CGOSA6 (-99)
VAR LABELS          CGOSA6, GOS:  IPM STEP SIX
```

GOSA7: OPM STEP SEVEN

Operations to do in CSCHOOL

```
ADD VARIABLES     CGOSA701 TO CGOSA704
MISSING VALUES    CGOSA701 TO CGOSA704 (-99)
VAR LABLES        CGOSA701, SUBFILE MEAN OF HV11055/
                  CGOSA702, SUBFILE MEAN OF HV11065/
                  CGOSA703, SUBFILE MEAN OF HV11067/
                  CGOSA704, SUBFILE MEAN OF HV11071/
COMPUTE           CGOSA705 = CV21022
RECODE            CGOSA705 (1,2=4) (3=2) (0,4 THRU 9=0)
VAR LABELS        CGOSA705, RATING OF IIC TIME ON EVALUATION
ASSIGN MISSING    CGOSA705 (-99)
COMPUTE           CGOSA7 = (CGOSA701 + CGOSA702 + CGOSA703 +
                            CGOSA704 + CGOSA705)/5
VAR LABELS        CGOSA7, GOS:  IMP STEP SEVEN
ASSIGN MISSING    CGOSA7 (-99)
```

GOSA8: MISCELLANEOUS IPM

Operations to do in CSCHOOL

```
RECODE            CV132G11 TO CV132G07 (BLANK, -99 = 0)
COMPUTE           CGOSA801 = (CV132G11 + CV132G21 + CV132G31 +
                  CV132G41 + CV132G51 + CV132G61 + CV132G71 +
                  CV132G81 + CV132G91 + CV132G01)/  CUCOUNT
ASSIGN MISSING    CGOSA801 (-99)
VAR LABELS        CGOSA801, PPN UNITS IPM IN READING
COMPUTE           CGOSA802 = (CV132G12 + CV132G22+ CV132G32 +
                  CV132G42 + CV132G52 + CV132G62 + CV132G72 +
                  CV132G82 + CV132G92 + CV132G02)/ CUCOUNT
ASSIGN MISSING    CGOSA802 (-99)
VAR LABELS        CGOSA802, PPN UNITS IPM IN LANG ARTS
COMPUTE           CGOSA803 = (CV132G13 + CV132G23 + CV132G33 +
                  CV132G43 + CV132G53 + CV132G63 + CV132G73 +
                  CV132G83 + CV132G93 + CV132G03)/ CUCOUNT
ASSIGN MISSING    CGOSA803 (-99)
VAR LABELS        CGOSA803, PPN UNITS IPM IN MATH
```

```
COMPUTE          CGOSA804 = (CV132G14 + CV132G24 + CV132G34
                 CV132G44 + CV132G54 + CV132G64 + CV132G74 +
                 CV132G84 + CV132G94 + CV132G04) /CUCOUNT
ASSIGN MISSING   CGOSA804 (-99)
VAR LABELS       CGOSA804, PPN UNITS IMP IN SCIENCE
COMPUTE          CGOSA805 = (CV132G15 + CV132G25 + CV132G35 +
                 CV132G45 + CV132G55 + CV132G65 + CV132G75 + CV132G85 +
                 CV132G95 + CV132G05) /CUCOUNT
ASSIGN MISSING   CGOSA805 (-99)
VAR LABELS       CGOSA805, PPN UNITS IMP IN SOCIAL STUDIES
COMPUTE          CGOSA806 = (CV132G16 + CV132G26 + CV132G36 +
                 CV132G46 + CV132G56 + CV132G66 + CV132G76 +
                 CV132G86 + CV132G96 + CV132G06) /CUCOUNT
ASSIGN MISSING   CGOSA806 (-99)
VAR LABELS       CGOSA806, PPN UNITS IPM IN MUSIC, ART, PHY. ED.
COMPUTE          CGOSA807 = (CV132G17 + CV132G27 + CV132G37 +
                 CV132G47 + CV132G57 + CV132G67 + CV132G77 +
                 CV132G87 + CV132G97 + CV132G07) /CUCOUNT
ASSIGN MISSING   CGOSA807 (-99)
VAR LABELS       COGSA807, PPN UNITS IMP IN OTHER
COMPUTE          CGOSA808 = CV21024
RECODE           CGOSA808 (0,5 THR 9=0) (1=2) (2,3,4=4)
VAR LABELS       CGOSA808, IIC TIME ON IPM AID TO UNITS/
ASSIGN MISSING   CGOSA808 (-99)
RECODE           CV135C1, CV135C2, CV135C3, CV135C4 (BLANK, 0,2=0)
                 (1,3,4=1)
VALUE LABELS     CV135C1, CV135C2, CV135C3, CV135C4
                 (0) NO IGM PROCEDURE  (1) IGM USED
COMPUTE          CGOSA809 = CV135C1 + CV135C2 + CV135C3 + CV135C4/
RECODE           CGOSA809 (1=2) (2,3,4=4)
ASSIGN MISSING   CGOSA809 (-99)
VAR LABELS       CGOSA809, PERVASIVE IGM USE
```

```
COMPUTE          CGOSA8 = ((CGOSA801 + CGOSA802 + CGOSA803 +
                 CGOSA804 + CGOSA805 + CGOSA806 + CGOSA807) * (8/7)
                 + CGOSA808 + CGOSA809) /4
ASSIGN MISSING   CGOSA8 (-99)
VAR LABELS       CGOSA8, GOS:  MISCELLANEOUS IPM
```

GOSA: General Operating Style: Instructional Programming Model

```
COMPUTE          CGOSA = (6 * CGOSA1 + 18 * CGOSA2 +  18 * CGOSA3 +
                         13 * CGOSA4 + 13 * CGOSA6 +  6 * CGOSA7 +
                         13 * CGOSA8)/4
VAR LABELS       CGOSA, GOS:  IMP COMPONENT
VALUE LABELS     CGOSA     (100) MAX IPM SCORE
ASSIGN MISSING   CGOSA (-99)
```

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